PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Applicant	:	John M. Hetzel, Jr.
Serial No.	:	09/689,131
Title:		FIBERGLASS COMPOSITE FIRE FIGHTING HELMET AND METHOD FOR MAKING A FIBERGLASS COMPOSITE FIREFIGHTING HELMET
Docket	:	520219-273
Examiner	:	S. Staicovici
Art Unit	:	1732

Assistant Commissioner for Patents
Washington, D.C. 20231

DECLARATION UNDER 37 C.F.R. §1.132

I, Teresa A. Lawson, do declare and state that:

1. I am Helmet Production Manager of Lion Apparel, Inc., the assignee of the above-identified patent application. I have reviewed and am familiar with the above-identified patent application.

2. I have served as Helmet Production Manager at Lion Apparel, Inc. for approximately three years, and have a total of 13 years of practical engineering experience. I graduated from ITT Technical Institute in 1994 with a two-year degree in Tool Design.

3. In November 2002 Ashland Specialty Chemical Co., at the request of Lion Apparel, Inc., conducted tests upon a helmet formed using the steps recited in the claims of this application, wherein such a helmet includes ceramic particles (termed the "Ceramic Helmet" herein). These tests compared the performance of the Ceramic Helmet to a helmet of similar size, shape, materials and dimensions, but which lacked any ceramic particles (termed the "Control Sample" herein). Attachment A includes a series of tables including the results of such testing.

4. Pages 1 and 2 of Attachment A provide test results relating to the tensile strength of the Control Sample (page 1) and the Ceramic Helmet (page 2). As can be seen in pages 1 and 2,

testing shows that the mean maximum tensile strength of the Ceramic Helmet is 15,483 psi, and the mean tensile strength of the Control Sample is 10,477 psi. Thus, the Ceramic Helmet showed a 48% increase in maximum tensile strength over the Control Sample.

5. Pages 3 and 4 of Attachment A provide test results relating to the flexural strength of the Control Sample (page 3) and the Ceramic Helmet (page 4). As can be seen at pages 3 and 4, testing shows that the mean flexural strength of the Ceramic Helmet is 28,183 psi, and the mean tensile strength of the Control Sample is 21,158 psi. Thus, the Ceramic Helmet showed a 33% increase in flexural strength over the Control Sample.

6 Pages 5-8 of Attachment A provide data relating to a drop dart evaluation for determining impact resistance of the Ceramic Helmet and the Control Sample. The drop dart test involves dropping a dart of predetermined size, shape and weight from various heights to determine at what drop height the dart causes the helmet to fail or rupture. As can be seen at pages 6 and 8 of Attachment A, the mean height from which the dart is dropped and causes failure of the Ceramic Helmet is 9.5 inches, as compared to 9 inches for the Control Sample. Thus, the Ceramic Helmet showed a 6% increase in impact resistance over the Control Sample as measured by the drop dart evaluation method.

7. Pages 9 and 10 of Attachment A provide test data relating to the izod impact test. The izod impact test involves swinging an arm of a predetermined size and shape into a test sample with a uniform force. The transmitted force of the impact is then measured. The izod test was carried out on notched sample (i.e. a sample with a notch or cut-out formed therein) as well as an unnotched sample. As can be seen at pages 9 and 10 of Attachment A, testing shows that the mean impact resistance of the notched Ceramic Helmet is 8.15 ft-lbs/in, and the mean impact resistance of the notched Control Sample is 7.9 ft-lbs/in. Thus, the Ceramic Helmet showed a 3% increase in impact resistance over the Control Sample as measured by the izod impact test for a notched sample.

8. Pages 9 and 10 of Attachment A shows that the mean impact resistance of the unnotched Ceramic Helmet is 14.25 ft-lbs/in, and the mean impact resistance of the unnotched Control Sample is 14.81 ft-lbs/in. Thus, the Ceramic Helmet showed a 3% decrease in impact

resistance over the Control Sample as measured by the izod impact test for an unnotched sample.

9. As shown at page 11 of Attachment A, the percentage of glass and the percentage of ash differed by 1% between the Control Sample and the Ceramic Helmet. However, in my opinion this small change in percentage would have only a minor effect upon the testing results, and in my opinion the presence of the ceramic particles is the main reason for the difference in performance between the Control Sample and the Ceramic Helmet.

10. Lion Apparel, Inc., the assignee of the above-identified patent application, markets, manufactures and sells the Ceramic Helmet under the trademark AMERICAN CLASSIC™. Attachment B shows the sales history of the Ceramic Helmet, and also includes sales data for other helmets sold by Lion Apparel, Inc. Lion Apparel currently markets, manufactures and sells five other types of helmets besides the AMERICAN CLASSIC.

11. As can be seen at the bottom of page 1 of Attachment B, for the period of December 2001-November 2002, Lion Apparel sold 7,332 Ceramic Helmets, which represented 28% of all helmets sold by Lion Apparel during that period.

12. As can be seen at the bottom of page 1 of Attachment B, for the period of December 2002-November 2003, Lion Apparel sold 9,727 Ceramic Helmets, which represented 40% of all helmets sold by Lion Apparel during that period.

13. As can be seen at the bottom of page 1 of Attachment B, for the period of December 2003-November 2004, Lion Apparel sold 7,954 Ceramic Helmets, which represented 38% of all helmets sold by Lion Apparel during that period.

14. As can be seen at page 1 of Attachment B, for the period of December 2001-November 2004, Lion Apparel has sold 25,013 Ceramic Helmets.

15. As can be seen in page 2 of Attachment B, for the period of March 2003-February 2004 Lion Apparel sold 8,535 Ceramic Helmets, and for the period of March 2004-February 2005 Lion Apparel sold 9,641 Ceramic Helmets.

16. For the period of March 2003-February 2005 Lion Apparel sold 18,994 of the Ceramic Helmets, making it the most popular helmet sold by Lion Apparel during that time period.

Serial No. 09/689,131
Attorney Docket No.: 520219-273
Declaration

17. The Ceramic Helmet, and other helmets sold by Lion Apparel, are advertised in similar manners and have similar advertising budgets. In fact, all helmets sold by Lion Apparel are typically marketed in print in the same brochures and literature.

18. In my opinion the fact that the Ceramic Helmet is formed using the steps recited in the claims of this application, wherein such a helmet includes ceramic particles is a direct cause of the commercial success of the Ceramic Helmet.

19. Attachment C is a print out from Lion Apparel's web page www.lionapparel.com, and more particularly www.paulconwayhelmets.bz/Classic.html, featuring the ceramic features of the Ceramic Helmet.

I hereby declare that all statements herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Teresa A. Lawson

Teresa A. Lawson

Date: April 6, 2005

368003

ASHLAND SPECIALTY CHEMICAL CO
PHYSICAL TESTING LAB
INSTRON 4204

TENSILE TEST - ENGLISH UNITS
ASTM D-638 (MAT-2202)

Test type: Tensile
Operator name: SLH
Sample Identification: 50989T1
Interface Type: 4200

Instron Corporation
Series IX Automated Materials Testing System 8 06.00
Test Date: Wednesday, November 27, 2002

Sample Rate (pts/secs): 5.0000
Crosshead Speed: 0.2000 in/min
2nd Crosshead Speed: 0.0000 in/min
Full Scale Load Range: 10000.000 lbf

Humidity (%): 50
Temperature: 71 F

SAMPLE ID: FR 998/35 Control
WINLIMS ID:

Sample comments:

	Maximum Tensile Strength (psi)	Modulus (ksi)	Elongation at Max Load (%)	Stress at Yield (psi)	Elongation at Yield (%)	Elongation at Break (%)	Width (in)	Thickness (in)
1	10459	1177.2	1.15	-	-	1.15	0.506	0.105
2	10562	1077.6	1.43	-	-	1.43	0.505	0.107
3	8729	1354.3	0.82	-	-	0.83	0.501	0.120
4	12366	1240.2	1.37	-	-	1.37	0.501	0.104
5	10272	1176.3	1.01	-	-	1.02	0.503	0.114
Mean	10477	1205.1	1.16			1.16	0.503	0.110
S.D.	1291	101.7	0.25			0.25	0.002	0.007

Reviewed By KMM
Reviewed Date 11/29/02

ASHLAND SPECIALTY CHEMICAL CO
PHYSICAL TESTING LAB
4444 INSTRON

FLEX TEST - ENGLISH UNITS
ASTM D-790 (MAT-2203)

Test type: Flex
Operator name: SLH
Sample Identification: 50989F1
Interface Type: 4200

Instron Corporation
Series IX Automated Materials Testing System 8 03 10
Test Date: Wednesday, November 27, 2002

Sample Rate (pts/secs): 2.0000
Crosshead Speed: 0.0500 in/min
2nd Crosshead Speed: 0.0000 in/min
Full Scale Load Range: 400.000 lbf

Humidity (%): 50
Temperature: 71 F

SAMPLE ID: FR 998/35 Control

WINLIMS ID:

Sample comments:

	Flexural Strength (psi)	TANGENT MODULUS (ksi)	Load at Yield (lbs)	Strain at Yield (in/in)	Width (in)	Thickness (in)	Span (in)	Toughness (psi)
1	22222	1012.5	97.2	0.027	0.992	0.115	2.000	44.504
2	18974	939.1	81.3	0.026	0.989	0.114	2.000	36.197
3	19155	963.3	81.6	0.025	1.001	0.113	2.000	37.162
4	20434	988.4	88.4	0.024	0.999	0.114	2.000	32.085
5	25005	1150.2	79.9	0.027	0.998	0.098	2.000	45.675
Mean	21158	1010.7	85.7	0.026	0.996	0.111	2.000	39.125
S.D.	2512	82.7	7.2	0.001	0.005	0.007	0.000	5.784

ASHLAND SPECIALTY CHEMICAL CO
PHYSICAL TESTING LAB
INSTRON 4204

TENSILE TEST - ENGLISH UNITS
ASTM D-638 (MAT-2202)

Test type: Tensile
Operator name: SLH
Sample Identification: 50989T2
Interface Type: 4200

Instron Corporation
Series IX Automated Materials Testing System 8 06 00
Test Date: Wednesday, November 27, 2002

Sample Rate (pts/secs): 5.0000
Crosshead Speed: 0.2000 in/min
2nd Crosshead Speed: 0.0000 in/min
Full Scale Load Range: 10000 000 lbf

Humidity (%): 50
Temperature: 71 F

SAMPLE ID: FR 998/35 Ceramic

WINLIMS ID:

Sample comments:

	Maximum Tensile Strength (psi)	Modulus (ksi)	Elongation at Max. Load (%)	Stress at Yield (psi)	Elongation at Yield (%)	Elongation at Break (%)	Width (in)	Thickness (in)
1	14676	1321.5	1.34	-	-	1.35	0.508	0 119
2	15093	1445.9	1.33	-	-	1.33	0.507	0.113
3	19820	1590.8	1.66	19636	1 62	1.66	0.505	0.098
4	14999	1354.6	1.33	-	-	1.33	0.501	0.105
5	12826	1332.3	1.13	-	-	1.13	0.501	0.108
Mean	15483	1409.0	1.36	0	0.00	1.36	0.504	0.109
S.D.	2594	112.8	0.19	0	0.00	0.19	0.003	0.008

ASHLAND SPECIALTY CHEMICAL CO
PHYSICAL TESTING LAB
4444 INSTRON

FLEX TEST - ENGLISH UNITS
ASTM D-790 (MAT-2203)

Test type: Flex
Operator name: SLH
Sample Identification: 50989F2
Interface Type: 4200

Instron Corporation
Series IX Automated Materials Testing System 8.03.10
Test Date: Wednesday, November 27, 2002

Sample Rate (pts/secs): 2.0000
Crosshead Speed: 0.0500 in/min
2nd Crosshead Speed: 0.0000 in/min
Full Scale Load Range: 400.000 lbf

Humidity (%): 50
Temperature: 71 F

SAMPLE ID: FR 998/35 Ceramic

WINLIMS ID:

Sample comments:

	Flexural Strength (psi)	TANGENT MODULUS (ksi)	Load at Yield (lbs)	Strain at Yield (in/in)	Width (in)	Thickness (in)	Span (in)	Toughness (psi)
1	28949	1032.4	183.4	0.031	0.998	0.138	2.000	59.656
2	24212	1022.4	128.0	0.025	0.999	0.126	2.000	43.484
3	32589	1219.5	149.3	0.028	1.004	0.117	2.000	57.222
4	26715	1102.4	125.6	0.028	0.996	0.119	2.000	51.798
5	28448	1095.4	141.0	0.027	0.999	0.122	2.000	49.899
Mean	28183	1094.4	145.5	0.028	0.999	0.124	2.000	52.412
S.D.	3082	78.6	25.3	0.002	0.003	0.008	0.000	6.364

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB
ASTM D-5420-98a
(MAT-2229)

DROP DART EVALUATION AND CALCULATIONS

AF NUMBER:	50989
REQUESTER:	Fowler
DATE:	11/27/2002
ANALYST:	SLH

SAMPLE ID: FR 998/35 Control

GEOM.	TUP DIA.	SUPPORT RING
A	.625+.004 in	3.00+0.01 in
B	.625+.004 in	1.25+.001 in
C	.625+.004 in	0.64+.001 in

GEOMETRY USED FOR THIS TEST (A,B,or C):	A	
DROP WEIGHT USED FOR THIS TEST (lbs):	0.5	lbs
INCREMENT OF HEIGHT(dh) TO BE EMPLOYED:	1	inches
NUMBER OF SPECIMENS TO BE TESTED:	15	

	Thickness (inches)
1	0.106
2	0.103
3	0.122
4	0.133
5	0.112
6	0.127
7	0.115
8	0.117
9	0.115
10	0.116
11	0.103
12	0.106
13	0.103
14	0.122
15	0.133
16	
17	
18	
19	
20	
AVERAGE :	0.1155

Use "X" for failure. Use "O" for non-failure

(inches)	height #1	height #2	height #3	height #4	height #5	height #6	height #7	height #8	height #9	height #10
	5	6	7	8	9	10	11	12	13	14
			O							
				X						
			O							
				O						
					X					
				O						
					O					
						X				
					X					
				X						
			X							
		O								
			O							
				O						
					O					

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REVISION DATE: 5-1-2000

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB
ASTM D-5420-98a
(MAT-2229)

DROP DART ANALYSIS CONTINUED (page 2)

Total failures =	6
Total non-failures =	9
Events (N) =	6
Q =	0.5

Coded Height (i):	0	0	1	2	3	4	5	6	7	8
Number of failures "X" at each height:	0	0	1	2	2	1	0	0	0	0
Number of non-failures "O" at each height:	0	0	3	3	2	0	0	0	0	0
Number of "*EVENTS*" at each height:	0	0	1	2	2	1	0	0	0	0

Disregard These Two Numbers: 7 1.000

Lowest height which an "*EVENT*" occurs: ho = 7

A =	1.5
B =	43

RESULTS:

	English Units	SI Units
MEAN FAILURE HEIGHT (h) units in inches =	9.000 inches	228.600 mm
STD DEVIATION OF SAMPLE HEIGHT (s_h) =	1.532 inches	38.913 mm
MEAN FAILURE ENERGY (MFE) =	4.500 in-lbf	0.508 Joules

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB
ASTM D-5420-98a
(MAT-2229)

DROP DART EVALUATION AND CALCULATIONS

AF NUMBER:	50989
REQUESTER:	Fowler
DATE:	11/27/2002
ANALYST:	SLH

SAMPLE ID: FR 998/35 Ceramic

GEOM.	TUP DIA.	SUPPORT RING
A	.625+.004 in	3.00+.001 in
B	.625+.004 in	1.25+.001 in
C	.625+.004 in	0.64+.001 in

GEOMETRY USED FOR THIS TEST (A,B,or C):	A	
DROP WEIGHT USED FOR THIS TEST (lbs):	0.5	lbs
INCREMENT OF HEIGHT(dh) TO BE EMPLOYED:	1	inches
NUMBER OF SPECIMENS TO BE TESTED:	15	

	Thickness (inches)
1	0.132
2	0.122
3	0.118
4	0.146
5	0.134
6	0.126
7	0.128
8	0.128
9	0.127
10	0.112
11	0.135
12	0.143
13	0.132
14	0.122
15	0.118
16	
17	
18	
19	
20	
AVERAGE :	0.1282

Use "X" for failure. Use "O" for non-failure

(inches)	height #1	height #2	height #3	height #4	height #5	height #6	height #7	height #8	height #9	height #10
	5	6	7	8	9	10	11	12	13	14
			O							
				O						
					X					
				O						
					O					
						O				
							X			
						O				
							X			
						X				
					O					
						X				
					O					
						X				
					X					

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REVISION DATE: 5-1-2000

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB
ASTM D-5420-98a
(MAT-2229)

DROP DART ANALYSIS CONTINUED (page 2)

Total failures =
Total non-failures =
Events (N) =
Q =

Coded Height (i):
Number of failures "X" at each height:
Number of non-failures "O" at each height:
Number of "*EVENTS*" at each height:
Disregard These Two Numbers:
Lowest height which an "*EVENT*" occurs: ho =

A =
B =

RESULTS:

	English Units	SI Units
MEAN FAILURE HEIGHT (h) units in inches =	9.500 inches	241.300 mm
STD DEVIATION OF SAMPLE HEIGHT (s_h) =	0.973 inches	24.707 mm
MEAN FAILURE ENERGY (MFE) =	4.750 in-lbf	0.536 joules

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB

IZOD IMPACT
ASTM D-256 (MAT-2246)

AF NUMBER: 50989
REQUESTOR: Fowler
DATE: 11/27/2002
ANALYST: SLH
RANGE(in-lbs): 50

SAMPLE		NOTCHED	UNNOTCHED	THICKNESS (in) NOTCHED	THICKNESS (in) UNNOTCHED	READING (ft-lbs) NOTCHED	READING (ft-lbs) UNNOTCHED
FR 998/35 Control	1	6.97	13.00	0.101	0.115	0.70	1.49
	2	6.53	15.90	0.099	0.114	0.65	1.81
	3	9.41	14.15	0.092	0.121	0.87	1.71
	4	9.03	12.62	0.114	0.119	1.03	1.50
	5	7.54	18.40	0.118	0.098	0.89	1.80
MEAN	(ft-lbs / in)	7.90	14.81				
STD. DEV.	(ft-lbs / in)	1.27	2.38				
MEAN	SI(J/M)	421.52	790.84				
STD. DEV.	SI(J/M)	67.61	126.82				

ASHLAND SPECIALTY CHEMICAL CO.
PHYSICAL TESTING LAB

IZOD IMPACT
ASTM D-256 (MAT-2246)

AF NUMBER: 50989
REQUESTOR: Fowler
DATE: 11/27/2002
ANALYST: SLH
RANGE(in-lbs): 50

SAMPLE		NOTCHED	UNNOTCHED	THICKNESS (in) NOTCHED	THICKNESS (in) UNNOTCHED	READING (ft-lbs) NOTCHED	READING (ft-lbs) UNNOTCHED
FR 998/35	1	6.97	13 00	0 101	0.115	0 70	1.49
Control	2	6.53	15.90	0 099	0.114	0 65	1 81
	3	9.41	14.15	0.092	0 121	0.87	1.71
	4	9.03	12.62	0.114	0.119	1.03	1.50
	5	7.54	18 40	0 118	0 098	0 89	1 80
MEAN	(ft-lbs / in)	7.90	14.81				
STD. DEV.	(ft-lbs / in)	1.27	2.38				
MEAN	SI(J/M)	421.52	790 84				
STD. DEV.	SI(J/M)	67.61	126.82				

SAMPLE		NOTCHED	UNNOTCHED	THICKNESS (in) NOTCHED	THICKNESS (in) UNNOTCHED	READING (ft-lbs) NOTCHED	READING (ft-lbs) UNNOTCHED
FR 998/35	1	8.26	14.87	0.126	0 112	1 04	1 67
Ceramic	2	7.71	13.86	0.117	0.128	0.90	1.77
	3	7.96	12.60	0.120	0.135	0.96	1 70
	4	7.75	16.13	0 131	0.118	1 01	1.90
	5	9.06	13.79	0 122	0.120	1 11	1.65
MEAN	(ft-lbs / in)	8.15	14 25				
STD. DEV.	(ft-lbs / in)	0.56	1.32				
MEAN	SI(J/M)	435.03	760.79				
STD. DEV.	SI(J/M)	29.68	70.66				

EXCEL
Q:\MAT Group\Excel Data\Dizod\Dizod.xls
Revision Date: 01-30-01

Ashland Chemical

Research & Development

ANALYTICAL Services & Technology

Request for QA Analysis

Requests cannot be logged until requester and project number are completed.

Date Submitted	November 26th, 02
Requester/Phone Number	S. Fowler x3926
Ashland Division/Location	CPD
Project Number	1038340
Project Name	
Manufacturer/Customer	

AF Number	50989
Date Registered	11-26-02
Registered By	ASN
Estimated Comp. Date	12-5-02
Primary Analyst	SLH
Refer to APP.	

Date Results Needed:	Safe Handling Precautions: (include MSDS or warnings of known hazardous properties)
12-6-02	

Sample ID →	FR 998/35 Control		FR 998/35 Ceramic							
List Analyses ↓ Required ↓	VALUE EXPTD	VALUE DETD	VALUE EXPTD	VALUE DETD	VALUE EXPTD	VALUE DETD	VALUE EXPTD	VALUE DETD	VALUE EXPTD	VALUE DETD
1. % ash		30.5		31.5						
2. % glass		30.5		31.5						
3. % filler		0.0		0.0						
4.										
5.										
6.										
7.										
8.										
9.										
10.										

Remarks:

$240.00

$120 * 2 = 240
urgent

☐ Standard ☒ Urgent Charges Authorized By: _____ Date: _____

Analyzed by: K. Fowler Approved by: JDS Date: 11-27-02

Direct inquiries to (614) 790-3278 or (800) 545-8779.
Requests may be faxed to (614) 790-4294.

Analytical Form #018
Revised 19-Aug-97

Reorder No. 2899

Model	Color	Nov04-Dec03	Nov03-Dec02	Nov02-Dec01
		Data		
MODEL	COLOR	Sum of TOT1-12	Sum of TOT13-24	Sum of TOT25-36
LFH20APD	10	0	0	0
	20	0	0	0
	30	0	0	0
	40	0	0	0
	50	0	0	0
	60	0	0	0
LFH20APD Total		0	0	0
LFH20BPD	10	0	0	0
	20	0	0	0
	30	0	0	0
	40	0	0	0
	50	0	0	0
	60	0	0	0
LFH20BPD Total		0	0	0
LFH20CPD	10	0	0	0
	20	0	0	0
	30	0	0	0
	40	0	0	0
	50	0	0	0
	60	0	0	0
LFH20CPD Total		0	0	0
LFH20DPD	10	0	0	0
	20	0	0	0
	30	0	0	0
	40	0	0	0
	50	0	0	0
	60	0	0	0
LFH20DPD Total		0	0	0
LFH2120A	11	257	385	355
	12	5	0	0
	22	588	1259	930
	32	132	194	180
	42	139	203	258
	51	8	0	0
	52	4	22	15
	62	6	13	8
	82	0	0	0
LFH2120A Total		1139	2156	1746
LFH2120B	12	18	0	0
	21	877	1	0
	22	407	791	1303
	32	31	113	182
	41	108	5	0
	42	76	115	239
	51	7	10	8
	52	2	0	0
	62	7	44	2
	82	0	80	0
LFH2120B Total		1333	1159	1734
LFH2120D	11	216	115	160
	12	10	0	0
	21	298	286	206
	22	0	0	0
	31	49	0	0
	32	43	66	45
	42	81	115	73
	52	0	4	0
	62	0	0	0
	82	0	0	0
LFH2120D Total		697	586	484
LFH2120E	12	343	965	454
	22	807	1860	982
	32	115	386	290
	42	146	580	362
	51	19	0	0
	52	20	60	25
	62	8	4	11
	82	0	0	0
LFH2120E Total		1458	3855	2124
LFH2120F	11	75	83	36
	12	1	0	0
	22	186	407	183
	32	42	97	59
	42	16	0	0
	52	3	7	2
	62	2	5	1
	82	0	61	0
LFH2120F Total		325	660	281
LFH2120G	11	0	0	0
	12	4	0	0
	22	0	0	0
	32	0	0	4
	41	0	0	0

Model Summary	Nov04-Dec03	Nov03-Dec02	Nov02-Dec01	Total
LFH20APD Total	-	-	-	-
LFH20BPD Total	-	-	-	-
LFH20CPD Total	-	-	-	-
LFH20DPD Total	-	-	-	-
LFH2120A Total	1,139	2,156	1,746	5,041
LFH2120B Total	1,333	1,159	1,734	4,226
LFH2120D Total	697	586	484	1,767
LFH2120E Total	1,458	3,855	2,124	7,437
LFH2120F Total	325	660	281	1,266
LFH2120G Total	8	-	4	12
LFH2120J Total	137	-	126	263
LFH2120K Total	706	443	394	1,543
LFH2120N Total	12	-	-	12
LFH2120P Total	-	-	15	15
LFH2120S Total	786	640	219	1,645
LFH2120U Total	83	124	36	243
LFH2122E Total	69	54	146	269
LFH2122Z Total	-	-	-	-
LFH2123A Total	50	-	-	50
LFH2124 Total	-	-	-	-
LFH2124A Total	-	-	-	-
LFH2124B Total	17	35	-	52
LFH2124E Total	9	6	-	15
LFH2124K Total	12	8	22	42
LFH2124S Total	46	-	-	46
LFH2126A Total	-	-	-	-
LFH2126B Total	-	-	-	-
LFH2126D Total	-	-	-	-
LFH2126E Total	-	-	-	-
LFH2126K Total	1	-	-	1
LFH2126S Total	-	-	-	-
LFH2127S Total	1,066	-	-	1,066
LFH212CS Total	-	1	1	2
LFH3710A Total	2,107	5,496	12,088	19,691
LFH3710B Total	28	3	52	83
LFH3711A Total	1,762	160	-	1,922
LFH3711B Total	-	-	-	-
LFH3712A Total	1,671	845	-	2,516
LFH3713A Total	305	-	-	305
LFH37APD Total	-	-	-	-
LFH37BPD Total	-	-	-	-
LFH3810A Total	120	222	44	386
LFH3810B Total	3	-	2	5
LFH3810E Total	31	53	305	389
LFH3810S Total	1	-	5	6
LFH3810T Total	-	51	-	51
LFH3B1CS Total	-	-	-	-
LFH3910A Total	1,882	1,907	1,752	5,341
LFH3910B Total	40	310	48	398
LFH3910E Total	2,904	3,265	2,908	9,075
LFH3910G Total	102	76	14	192
LFH3910J Total	37	111	146	294
LFH3910S Total	57	106	53	216
LFH3910T Total	-	-	-	-
LFH3910U Total	29	3	46	78
LFH3916U Total	53	9	8	70
LFH3917E Total	7	-	-	7
LFH391CS Total	104	-	32	136
LFH4120B Total	625	521	767	1,913
LFH4120D Total	121	107	173	401
LFH4120E Total	263	507	321	1,091
LFH4120F Total	225	273	191	689
LFH4120K Total	222	282	252	756
LFH4120N Total	-	-	-	-
LFH4120S Total	58	50	58	166
LFH4121E Total	-	-	-	-
LFH412CS Total	35	83	578	696
LFH5100B Total	123	51	45	219
LFH5100H Total	8	21	30	59
LFH5100S Total	16	20	11	47
LFH510CS Total	-	-	-	-
LFHSD1A Total	66	52	185	303
LFHSD1C Total	28	21	154	203
LFHSD1E Total	40	163	36	239
LFHSDCA Total	18	62	68	148
Grand Total	20,845	24,957	27,702	73,104
Classics ONLY	7,954	9,727	7,332	25,013
Percent of Total	38%	40%	26%	34%

Helmet only sales

	Year	Feb05-Mar04	Feb04-Mar03
Descrip	**Item8**	**Unit**	**Unit**
Traditional	LFH2020A	317	253
Traditional	LFH2020B	38	165
Traditional	LFH2020C	22	5
Traditional	LFH20APD	-	-
Traditional	LFH20BPD	-	-
Traditional	LFH20CPD	-	-
Traditional	LFH20DPD	-	-
Traditional Total		**377**	**423**
Classic	LFH2120A	1,820	2,334
Classic	LFH2120B	669	974
Classic	LFH2120D	1,132	525
Classic	LFH2120E	2,585	2,548
Classic	LFH2120F	531	622
Classic	LFH2120G	18	1
Classic	LFH2120J	30	177
Classic	LFH2120K	331	398
Classic	LFH2120N	30	-
Classic	LFH2120P	-	-
Classic	LFH2120S	1,163	598
Classic	LFH2120U	73	173
Classic	LFH2122E	50	84
Classic	LFH2122Z	-	-
Classic	LFH2123A	50	-
Classic	LFH2124	-	-
Classic	LFH2124A	-	21
Classic	LFH2124B	17	32
Classic	LFH2124E	5	39
Classic	LFH2124K	13	1
Classic	LFH2124S	54	-
Classic	LFH2126A	1	-
Classic	LFH2126B	-	-
Classic	LFH2126D	-	-
Classic	LFH2126E	1	7
Classic	LFH2126K	1	-
Classic	LFH2126S	-	-
Classic	LFH2127S	1,066	-
Classic	LFH212CS	1	1
Classic Total		**9,641**	**8,535**
Lion	LFH3710A	2,387	4,048
Lion	LFH3710B	80	30
Lion	LFH3711A	2,556	1,188
Lion	LFH3711B	-	-
Lion	LFH3712A	2,554	3,655
Lion	LFH3713A	319	82
Lion	LFH37APD	-	-
Lion	LFH37BPD	-	-
Lion Total		**7,896**	**9,003**
Modern	LFH3810A	203	271

Modern	LFH3810B	3	-
Modern	LFH3810E	26	61
Modern	LFH3810S	1	-
Modern	LFH3810T	12	51
Modern	LFH381CS	-	-
Modern	LFH3910A	1,384	1,832
Modern	LFH3910B	53	295
Modern	LFH3910E	2,681	3,109
Modern	LFH3910G	115	73
Modern	LFH3910J	9	68
Modern	LFH3910S	70	82
Modern	LFH3910T	-	-
Modern	LFH3910U	7	32
Modern	LFH3916U	52	10
Modern	LFH3917E	9	7
Modern	LFH391CS	6	2
Modern Total		**4,631**	**5,893**
Heritage	LFH4120B	167	526
Heritage	LFH4120D	103	181
Heritage	LFH4120E	245	550
Heritage	LFH4120F	258	251
Heritage	LFH4120K	78	223
Heritage	LFH4120N	-	1
Heritage	LFH4120S	39	82
Heritage	LFH4121E	1	-
Heritage	LFH412CS	91	84
Heritage Total		**982**	**1,898**
Rescue	LFH5100B	158	70
Rescue	LFH5100H	50	21
Rescue	LFH5100S	30	29
Rescue	LFH510CS	6	-
Rescue	LFHSD1A	64	46
Rescue	LFHSD1C	28	21
Rescue	LFHSD1E	50	163
Rescue	LFHSDCA	142	50
Rescue Total		**528**	**400**
Grand Total		**24,055**	**26,152**